



NAVAL SUPPLY SYSTEMS COMMAND

NAVAL INVENTORY CONTROL POINT



Performance Based Logistics



Naval Inventory Control Point

The Way Ahead

PBL

Changing our traditional support strategy - Buying performance based support package... no longer just buying parts

"Inventory Based Readiness"



Managing "Mountains" of Material



Managing Supplier Performance

The Way Ahead PBL

"A PBL strategy is an agreement, usually long term, in which the provider (organic, commercial, and/or public/private partnership) is incentivized and empowered to meet overarching customer oriented performance requirements (reliability, availability, etc.) in order to improve product support effectiveness while reducing Total Ownership Cost (TOC)."

DoD PBL
Guidance Document, 27 JAN 2003

PBL Supplier Roles

- Warehousing
- Requirements determination
- Engineering/tech services
- Transportation
- Repair/overhaul/replace decision
- Consumable piece parts
- Obsolescence management
- Configuration management
- Technology/reliability insertion

Cultivate
Long Term
Partnerships
With
Industry



Leverage
Commercial
Supply
Chain
Solutions

***Procuring System Performance ... NOT
just parts/repairs***

PBLs: One Size Does NOT fit All ...Each is Unique!

- **Contract Type:**
 - Fixed, Cost +
- **Length:**
 - 5-15 Years; Base & Option(s)
- **Metrics:**
 - Availability, Reliability, LRT
- **Incentives:**
 - Profit tied to performance
 - Award fees
- **Risk Sharing:**
 - Ramp-up Periods
 - Exit Provisions
 - Gain Sharing
- **Obsolescence Management**
 - Product life cycle mgmt
 - Proactive approach

- **Long term Partnerships:**
 - Promote Supplier Investment
 - NWCF Funding Enables Supplier ROI
 - Technology Infusion/Refresh
- **Best Business Practices:**
 - Six Sigma, Lean Logistics
 - Leverage Commercial Expertise
- **Focused on Performance**
 - Right Behavior Incentivized
 - Better Performance, More Award
- **Tracking**
 - Awarded > Monthly/Qtrly
 - In-Work > Weekly
- **DLA Involvement**
 - Markets Self as Best Value Provider

Development Process...12-24 Months →



Input From:

- Program Office
- Fleet
- Industry
- ICP "Opportunity Index"

Focus On:

- New Systems
- Commercial for Life
- Low Reliability
- Poor Availability
- Obsolescence Challenges

Responsibilities:

Government:

- Must accurately capture & forecast costs of traditional government processes

Contractor:

- Proposal in response to SOW
- Incorporate commercial best practices and industry expertise... costing based on the re-engineered process

Focus On:

- Best Value Support
- Transition Plan
- Performance Tracking
- Program Reviews

**Includes
Title 10 analysis
prior to award**



The Way Ahead PBL

**14 SE
PBLs**

**Aviation
Awarded
Total: 65**

**FY03 Obligations:
\$361.5M**

New Systems: 19

Fielded Systems: 46

Partnerships: 9

In-work Joint: 2

Total: 28

New Systems: 8

Fielded Systems: 20

Partnerships: 18

Joint: 1

Aviation Awarded PBLs					Aviation PBLs				
Contractor	PBL	Date	Type	Depot	Contractor	PBL	Date	Type	Depot
Boeing	F-18 ARF	Pre-96	M		Lockheed	F-14 LANTIRN	Jan 01	F	
Litton	Common RINU	Sep-96	F		Michelin	Common Tires	Feb 01	F	
Lear	H-46 AHRS	Sep-97	F		Jay-Em	EA-6B Main Wheels	Feb 01	C	
NWS Crane	P-3 SSIP	Oct-97	O		Lockheed	E-2 APS-145	Feb 01	M	
Testek	SE AGTS	Apr-98	F		Boeing	F/A-18E/F FIRST	May 01	P	Multi
GE Strother	Engines T-700	Sep-98	M		Charleston	P-3 EP-3J Mod	May 01	O	
GEC Marcon	Common SCADC	Sep-98	F		Lockheed	SE EOSS+	Jun 01	F	
Sikorsky	H-60 Damper	Mar-99	F		TRW Inc.	E-2 GRIM RePr	Sep 01	F	
Rolls-Royce	Engines T-406 PBTH	Mar-99	CLS		Smith Ind.	Common ASN-50	Oct 01	F	
							Oct 01/		
Marconi	Common NGS	Jul-99	F		Raytheon	H-53 HNVS FLIR (renewed)	Mar 03	F	
Smith Ind.	F-18/F-14/AV-8 SMS	Sep-99	F		Honeywell	C-130 APU	Feb 02	F	
Raytheon	Common ALR-67(v)3	Oct-99	F		Honeywell	F-18 E/F APU	Feb 02	P	CP
Honeywell	EA-6B EFIS	Dec-99	C		AH-1W	AH-1W NTS	Apr 02	M	
Deval	SE AHE	Dec-99	F		Lockheed	H-60 Avionics	May 02	F	
Dyncorp	SE GOSSPL	Feb-00	F		FST Jax	SE SALSA	Jul 02	O	
		Dec 97					Mar 99		
LMIS	SE CASS/CASS CSP	/May 00	F		LSI	T-2 Cockpit (renewed)	/Jul 02	M	
Honeywell	S-3/E-2/C-2/F-18-A/D/ P-3 APU's	Jun-00	P	CP	Raytheon	Common ALE-50A	Aug-02	F	
Dyncorp	SE QEC	Jun-00	O		Keyport	EA-6B Tailpipes	Dec-02	O	
		Jun 00/							
Raytheon	V-22 NAVFLIR (renewed)	Mar 03	F		Rolls-Royce	Engines AE2100D3 PBTH	Dec-02	CLS	
FST Noris	SE CRATE (ended)	Jun-00	O		Sikorsky	H-60 Dyn Comp	Feb-03	F	
							Jan 01		
Multi Rae	SE Gas Detector	Jun-00	F		BAE	SE EWSE (renewed)	/Feb-03	F	
Sikorsky	H-53 MRH	Jul-00	M		AAI	SE JSECST	Mar 03	M	
Sikorsky	H-53 MGear Box	Jul-00	M		Boeing	F/A-18 MSP (mod to ARF)	May 03	M	
Kaman	H-2 A/C	Aug-00	F		GE	Engines F404	Jul 03	P	Jax
L-3 Comm	E-2 EMDU	Aug-00	F		Lockheed	SE CASS Hi Power	Jul-03	F	
Boeing	V-22 DLRs	Jan 01	F		Kaiser	F/A-18/F-14 HUD/DDI	Sep-03	P	Jax/NI
NWS Crane	S-3 Elec Tubes	Apr 01	O		Raytheon	H-60 FLIR	Sep 03	P	Jax
Inst	SE IFFITTS	Mar 01	F			H-46 APU			
FST Jax	SE EOTS	Jan 01	O		Ham Sundst	H-53 APU	Oct 03	P	CP
					Honeywell	P-3 EDC (APU add-on)	Oct 03	P	CP
Rockwell	Common ARC-210	Jan 01	F		MHSCO	H-60 Tip-to-Tail	Dec 03	P	Jax/N/CP CCAD Toby

Basic Business Overview... Differences between traditional and PBL support

Traditional

Parts support - buying parts, reactive, multiple steps, long administrative lead times, numerous stovepiped and non-integrated organizations, delays between touch points, inventory flexibility constrained by funding/FAR

Depot - output affected by numerous external variables (parts, funding, schedule)

Reliability - lack of funding for investment

Diagnostic - O/I/D maint processes/data not integrated

Contracts - Multiple/disjointed support contracts for specific parts/repairs

Vs

Parts support - buying performance, proactive, faster support due to single owner/integrator responsible from requirement to dlyv, increased funding/supplier flexibility to find/buy parts quicker

Depot - variables controlled by contractor, eng/maint/sup better synchronized

Reliability - Internal funding available for improvements if sufficient return on investment ... facilitates incorporation of known solutions

Diagnostic - Integrate O/I/D maint data to reduce BCMs, insert tech reps

Contracts - One long term contract buying guaranteed performance outcome

Reasons why PBLs are different:

Improved Parts Support ... Material availability increases + Logistics Response Time (LRT) decreases resulting in Improved Readiness

Depot Efficiency ... Repair Turn Around Time (RTAT), Awaiting Parts (AWP), & Work in Progress (WIP) decrease

Reliability Investment ... Mean Time Between Failures (MTBF) increases

Diagnostic Process Upgrades ... inductions and frequency of repairs decrease

Long-term contracts ... enabler for above... firm fixed price for level of performance ... long-term funding commitment allows contractor to amortize investment over period of performance... structured to incentivize contractor to reduce demands and introduce efficiencies



***Buying weapon system performance...
optimizing logistics support***

What have we learned? PBL is not just supply chain mgmt, but a combination of below... All are equally important

Industry Engineering Expertise... Single integrator with long-term perspective

- *Responsibility for multiple roles in control of single provider... Not just parts availability, but accountability of outcome/end result*

Process Improvements

- *PBLs infuse engineering and supply chain best practices in govt processes*

Supply Chain Integration

- *Optimizes logistics support by integrating the traditional fragmented supply chain segments... synchronization of all supply chain activities to create customer value*

***PBL Success = Industry Engineering
Expertise + Process Improvements +
Supply Chain Integration***



The Way Ahead

PBL

PBL Successes ... A Sampling

Improved Availability: ***CIWS ... was 60%, now 89%***
F-14 Targeting System ... was 73%,
now 90%

Better Response: *F-18 Stores Mgmt System ...*
Customer Wait Time *(CWT) was 47 days, now 7*
 Auxiliary Power Unit (APU) ... CWT
was 35 days, *now 6 ... RTAT was 162 days,*
now 38

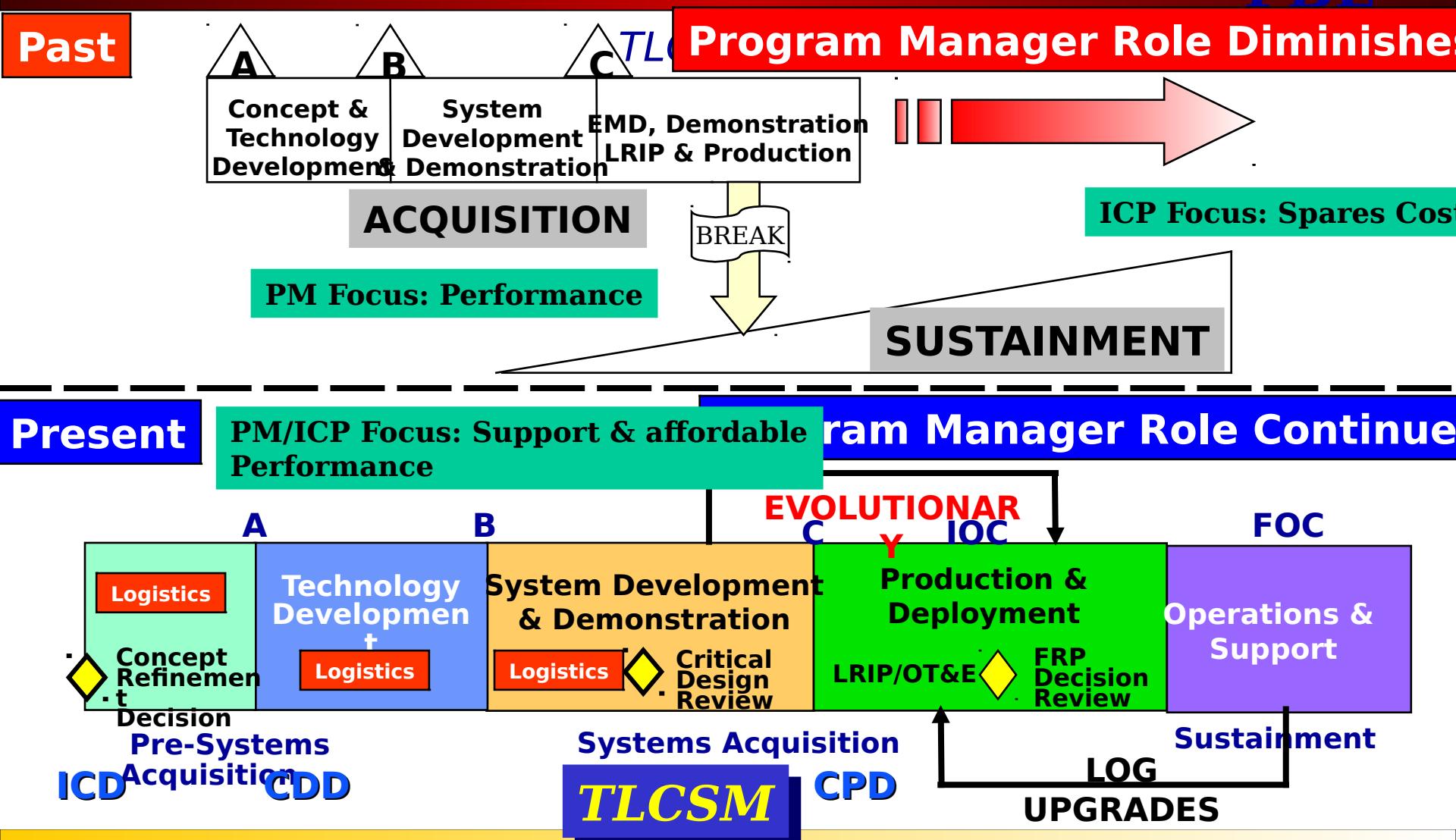
Guaranteed Reliability: Radar Warning Receiver ... 53% increase

H-60 FLIR ... 40% increase
Making Steady Progress ... Growing PBL to "TLCSM"



The Way Ahead

PBL



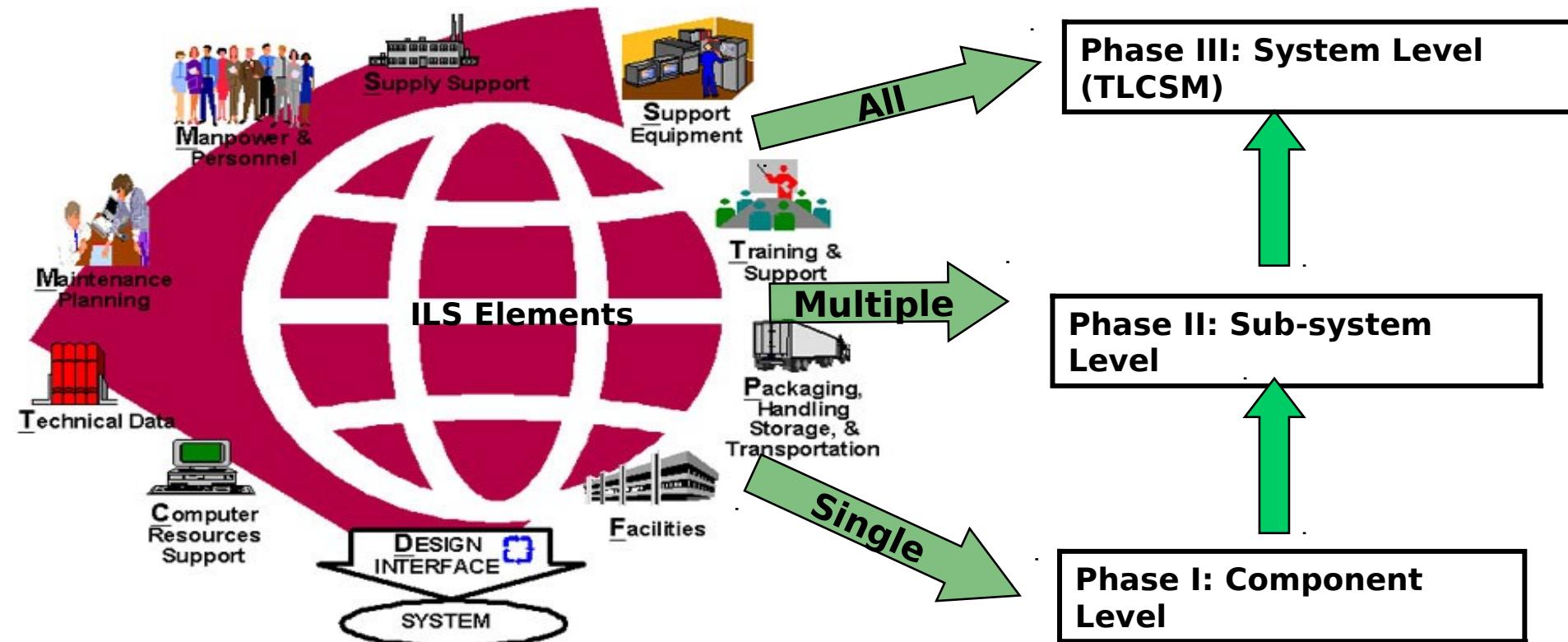


Naval Inventory Control Point

The Way Ahead PBL

Making PBLs “Bigger” and “Broader” Approach

Phase I and II contracts in place... moving to Phase III



Integration With All Support Elements Provides Greater Opportunities For Optimal Support



The Way Ahead

Cost-Wise Readiness

Naval Inventory Control Point

OAG Top 10 Priorities

RANKING	ISSUE
1	Legacy TPS Transition to CASS
2	MSU-200NAV Jet Air Start Unit
3	Jet Engine Test Cell Instrumentation (JETI)
4	AWM-103 SMSTS
5	Mobile Nitrogen Gas Generator
6	Oxygen Servicing Trailer Replacement
7	Fuel Qty Test Set Replacement
8	Crane for A/C & Boats
9	Shaft Engine Test Cell Instrumentation
10	CASS Block I/II Modernization

<u>Input From:</u>	<u>Focus On:</u>
• Program Office	• New Systems
• Fleet	• Commercial for Life
• Industry	• Low Reliability
• ICP	• Poor Availability
<u>“Opportunity Index”</u>	• Obsolescence Challenges
	• High Cost/High

TOP 10 READINESS DEGRADERS

RANK	DEGRADER	ISSUES	ACTIONS	GET WELL
1	JASU (GTCP-100)	Low reliability highest single SE AVDLR cost item	Procurement of MSU-200 replacement Jet Start Cart	Deliveries begin in FY04
2	Crane, Truck Mounted, Salvage, CVCC (A/S32A-35A)	Declining MTBF	Procurement of New CV Crane	Delivery beginning FY 07
3	Oxygen servicing trailer (NO-2, NO4)	Low reliability, Part shortages	Procurement of New O2 trailer	Delivery beginning FY 05
4	T56 Engine Test System (A/E37T-17)	Declining MTBF	Procurement of New TPTI Test System	Delivery beginning FY 10
5	LOX/Nitrogen Generating Plant	Reliability improvement ECP planned Low reliability	Turbo Expander Replacement submitted under PBD721 Proposal	Delivery beginning FY 05 Effort will start in FY 05, with replacement of expander in FY 06
6	Turbo Fan/Jet Engine Test System (A/F32T-10)	Low reliability, Part shortages	Procurement of new JETI Test System	Delivery began FY 03
7	Hybrid Test System (HTS)	Low reliability	Replacement by CASS/TPS	Delivery beginning in FY 07
8	Test System Turbo Fan/Jet Engine (A/M37T-23)	Declining MTBF	Procurement of New SETI Test System	Delivery beginning FY 06
9	Turboshaft Engine Test System (A/E37T24V4)	Reduced reliability	Replacement by SETI	Delivery beginning in FY 06
10	Avionics Test Set (Tailored Mini Vast)	Reduced reliability	Replacement by CASS TPS	Delivery beginning FY 05

The Way Ahead Cost-Wise Readiness

- The Radar Liquid Cooling System (RLCS) - designed to cool APG-65/73 radar transmitter (top readiness degrader)
- Mayhew Liquid Coolant Filtration Unit (LCFU) - designed to filter PAO used in RLCS, removing impurities and air, then filling system as required
- Using the Mayhew LCFU to service the F/A-18 Radar Liquid Cooling System (RLCS) reduces transmitter operating temperature, which leads to:
 - 50% Increase in MFHBF
 - \$1.7M/Yr in cost avoidance
- SERMIS deficit is 99... (\$22K cost of equipment)



**SE Cost-Wise
Readiness**



Summary

- Performance Based Logistics... a growing part of business base... buying system performance and optimized logistics support, not just parts/repairs
 - *We have several “PBLs” - we will grow to bigger/broader PBLs*
- Cost-Wise Readiness Focus...focus resources on readiness
- ICP / NAVAIR Alignment... align processes and end-to-end systems and capabilities
 - **“Right Force... Right Readiness... Right Cost”**



Naval Inventory Control Point

Back-Up PBL Info

- Dept of Navy Performance Based Logistics Guide  PDF File
- Designing and Assessing Supportability in DOD Weapon Systems: A Guide to Increased Reliability and Reduced Logistics Footprint
- DoD Template for Application of TLCSM and PBL in the Weapon System Life Cycle  PDF File
- NAVICP PBL website: <https://extra.navicp.navy.mil/scs/index.htm>  Microsoft Word Document